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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/499,633	02/08/2000	Young-Soon Cho	0630-0981P	1525

7590 02/16/2005
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Falls Church, VA 22040-0747

EXAMINER

REAGAN, JAMES A

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/499,633

Applicant(s)

CHO ET AL.

Examiner

James A. Reagan

Art Unit

3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 41-46 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 41-46 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Status of Claims

1. This action is in response to the amendment received on 13 January 2005.
2. Claims 4-39 have been cancelled.
3. Claims 1-3 have been amended.
4. Claims 41-46 are new.
5. Claims 1-3 and 41-46 have been examined.
6. The rejections of claims 1-3 have been updated to reflect amended limitations.
7. The rejections of claims 41-46 are original.

RESPONSE TO ARGUMENTS

8. Applicant's arguments received on have been fully considered but they are not persuasive. Referring to the previous Office action, Examiner has cited relevant portions of the references as a means to illustrate the systems as taught by the prior art. As a means of providing further clarification as to what is taught by the references used in the first Office action, Examiner has expanded the teachings for comprehensibility while maintaining the same grounds of rejection of the claims, except as noted above in the section labeled "Status of Claims." This information is intended to assist in illuminating the teachings of the references while providing evidence that establishes further support for the rejections of the claims.
9. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneck et al, (US 5,933,498), in view of Akiyama et al. (US 5,784,464 A), in view of the applicant's own admissions.

Examiner's Note: The Examiner has pointed out particular references contained in the prior art of record in the body of this action for the convenience of the Applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claims, other passages and figures apply as well. It is requested from the Applicant, in preparing the response, to consider fully the entire references as well as the context of all reference passages as potentially teaching all or part of the claimed inventions.

Claim 1:

Schneck, in at least Fig 8; Col 15, lines 19-38; Figs 9-12; Col 14, lines 32-50 discloses the following limitations:

- *a data storage medium for storing the digital data file download from a PC;*
- *the digital data file having been encrypted by:*
 - 1) *generating an encryption key including at least a serial number of the digital data playing device and/or an ID number of the storage medium;*

2) transmitting said encryption key from the digital data playing device to an encryption/download unit of the PC through a network; and

3) encrypting by the PC the digital data file using said encryption key;

Schneck does not specifically disclose that the data storage medium is a playing device. Akiyama, however, in at least column 5, lines 31-43 discloses a removable disc device attached to a personal computer. In addition, applicant, in the background of the specification, discloses that transferring MP3 files from a server to a PC and then to a playing device is known in the art, as well as encryption and decryption steps, thereby disclosing the following limitations:

- *a microcomputer for decrypting the digital data file read from the data storage medium using said encryption key; and*
- *a decoder for reproducing the decrypted digital data file.*

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Schneck with Akiyama and applicants own admissions because removable storage media are well-established method for transferring and playing digital files.

Claim 2:

Schneck teaches that effective protection of the data may be accomplished by encrypting the data and rules governing its access using one or more encryption keys, each generated by using unique IDs associated with the product distributed, its storage medium, player device, end user, product publisher, and/or any combination of these numbers. In addition, Schneck, in at least Figure 7 and associated text discloses basing an encryption key on a serial number, essentially disclosing basing the encryption key on manufacturer data or combinations thereof. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Schneck with Akiyama because such an embodiment would specifically control access to data being distributed, according to each specific user or class

of user (each user having bought a player device from a specific manufacturer, each such player uniquely identified by its serial number).

Claim 3:

As the references cited above show, Schneck/Akiyama disclose that encryption keys used in his system may be derived using many different, well known encryption algorithms. Using additional arbitrary values in such encryption algorithms (i.e. semi-random or random numbers) is well known within the art. Therefore, it would have been obvious to one ordinarily skilled in the art at the time the invention was made that a system could have been set up with the encryption key further including an arbitrarily set value, for the purpose of making the transmitted encrypted data harder to crack thus better protected.

Claim 40:

The limitations of claim 40 are substantially equivalent to the limitations cited above, and are therefore rejected on the same grounds.

12. Claims 41-46 are rejected under 35 U.S.C. 102(e) as being anticipated by Schneck/Akiyama/Applicant's own admissions and further in view of Menezes et al. "Handbook of Applied Cryptography" © 1997.

Claims 41-44:

The combination of Schneck/Akiyama/Applicant's own admissions disclose the encryption and file transfer method as shown above. Schneck/Akiyama/Applicant do not disclose:

- *the encryption key supplied to the encryption algorithm is generated by adding at least one first internal key to the ID number of the digital data playing device or the associated memory;*

- *the at least one internal key is based on a convention between the PC and the digital data playing device;*
- *the second encryption algorithm generates said encrypted encryption key by adding a second internal key based on the convention between the PC and the digital data playing device, to the encryption key;*
- *the encrypted digital file downloaded from the PC is encrypted by a key generated by adding at least one internal key based on a convention between the PC and the digital data playing device to the ID number and further encrypting the added result;*

However, Akiyama discloses a second encryption key (see at least column 11, lines 43-59). Menezes, in at least section 13.5.2 discloses key variants, which is functionally equivalent and identical to the applicant's system-based appendage to the serial-number derived key. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Schneck/Akiyama/Applicant with Menezes because this provides a further layer of data protection based solely upon the digital music player system of the instant user.

Claims 45 and 46:

The combination of Schneck/Akiyama/Applicant's own admissions disclose the encryption and file transfer method as shown above. Schneck/Akiyama/Applicant do not disclose:

- *the digital data playing device is a device of an end user;*
- *the data playing device generates said encryption key;*

However, Examiner takes **Official Notice** that it is old and well known in the computer networking arts that MP3 devices are used by recreationally by end users, and that generation of encryption keys is accomplished by any computing device programmed for such endeavors.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **James A. Reagan** whose telephone number is **(703) 306-9131**. The examiner can normally be reached on Monday-Friday, 9:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **James Trammell** can be reached at (703) 305-9768.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **Receptionist** whose telephone number is **(703) 305-3900**. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 305-7687 [Official communications; including

After Final communications labeled "Box AF"]

(703) 308-1396 [Informal/Draft communications, labeled "PROPOSED"
or "DRAFT"]

Hand delivered responses should be brought to Crystal Park 5, 2451 Crystal Drive, Arlington, VA, 7th floor receptionist.

JAR

13 February 2005

